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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,600	01/18/2002	Yoshitaka Fujita	P14979-A	4645
21254	7590	03/29/2006	EXAMINER	
MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			SHAND, ROBERTA A	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

No P-2  
For GC/As

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/050,600	FUJITA, YOSHITAKA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Roberta A. Shand	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 11-16 and 23-27 is/are allowed.  
6) ☒ Claim(s) 1-10 and 17-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/5/06</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5, 6, 8, 10 and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Mesh (U.S. 2002/0085591 A1).

3. Regarding claims 1 and 6, Mesh teaches (fig. 4) a multiplexing method of multiplexing signals from a transmitting section to a receiving section, comprising: adding to each of the signals an identification address (fig. 3, 48 and paragraph 34) identifying section through which the signal passes in a multiplexing system and outputting the signals (fig. 3, 54); extracting the address (fig. 3, 38 and paragraph 33) and multiplexing the signals on the basis of the address (fig. 3, 36 and paragraph 33).

4. Regarding claims 3 and 8, Mesh teaches (fig. 4) a demultiplexing method of demultiplexing signals and transmitting to the receiving section, comprising: adding (fig. 3, 48 and paragraph 34) to each of the signals an identification address identifying section through which the signal passes in a multiplexing system and outputting the signals (fig. 3, 54); extracting the address (fig. 3, 38 and paragraph 33) and demultiplexing the multiplexed signals on the basis of the address (fig. 3, 36 and paragraph 33).

5. Regarding claims 5 and 10, Mesh teaches (fig. 4) a demultiplexing method of demultiplexing a multiplexed signal, comprising: extracting the IP address (fig. 3, 38 and paragraph 33) from each packet in the received multiplexed signal; demultiplexing the multiplexed signal into PPP packets (paragraph 26) on the basis of the extracted address.
6. Regarding claims 17, Mesh teaches (fig. 4) a multiplexing/demultiplexing apparatus that multiplexes signals from a transmitting section to a receiving section and demultiplexing signals and transmitting to the receiving section, comprising: extracting means for extracting (fig. 3, 38 and paragraph 33) the address added (fig. 3, 48 and paragraph 34) to each of the signals an identification address identifying section through which the signal passes in a multiplexing system and outputting the signals (fig. 3, 54); and multiplexing the signals on the basis of the address; second extracting means for extracting (fig. 3, 34 and paragraph 33) the address added to the multiplexed signals identifying the section through which the signal passes in a demultiplexing system; and demultiplexing means demultiplexing the signals based on the MAC address (paragraph 41).
7. Regarding claim 20 Mesh teaches (fig. 4) a multiplexing/demultiplexing apparatus that multiplexes signals from a transmitting section to a receiving section and demultiplexing signals and transmitting to the receiving section, comprising: extracting means for extracting (fig. 3, 38 and paragraph 33) the MAC (paragraph 41) address added (fig. 3, 48 and paragraph 34) to each of the signals an identification address identifying section through which the signal passes in a multiplexing system and outputting the signals (fig. 3, 54); and multiplexing the signals on the

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basis of the address; second extracting means for extracting (fig. 3, 34 and paragraph 33) the IP address of the respective packets from the packets in the POS signal (paragraph 28); and demultiplexing means demultiplexing the packets in the POS signal into the packets for the subscribers on the basis of the IP address extracted by the second extracting means and outputting the packets (paragraphs 24-45).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 4, 7, 9, 18, 19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mesh in view of Baum (U.S. 6904054 B1).

10. Regarding claims 2, 4, 7, 9, 18 and 19, Mesh teaches (paragraph) MAC

11. Mesh does not explicitly teach the communication signal includes a PPP packet created for each Internet subscriber apparatus.

12. Baum teaches (col. 4, line 66 – col. 5, line 12) PPP over Ethernet. It would have been obvious to one of ordinary skill in the art to adapt PPP over Ethernet taught by Baum to Mesh's system because PPPoE can be used on existing customer premise equipment, extending the PPP session over the bridged Ethernet LAN to the PC, and PPPoE preserves the point-to-point session used by ISPs.

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13. Regarding claims 21 and 22, Baum teaches (col. 23, lines 31-45) the packets are Ethernet IEEE 802.3 packets.

***Allowable Subject Matter***

14. Claims 11-13, 14-16 and 23-27 are allowed.

***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Shand whose telephone number is 571-272-3161. The examiner can normally be reached on M-F 9:00am-5:30pm.

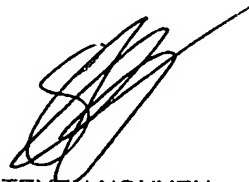
16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roberta A Shand  
Examiner  
Art Unit 2665



STEVEN NGUYEN  
PRIMARY EXAMINER